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(c) The fuel is carried in metal containers that are either:

(1) In strong tight metal containers of not more than 20 L (5.3 gallons) capacity, each packed inside a UN 4G fiberboard box or each packed inside a UN 4C1 wooden box, or in the case of a small aircraft in Alaska, each packed inside a wooden box of at least 1.3 cm (0.51 inch) thickness;

(2) Airtight, leakproof, inside containers of not more than 40 L (11 gallons) capacity and of at least 28-gauge metal, each packed inside a UN 4C1 wooden box or, in the case of a small aircraft in Alaska, each packed inside a wooden box of at least 1.3 cm (0.51 inch) thickness;

(3) UN 1A1 steel drums of not more than 20 L (5.3 gallons) capacity; or

(4) Fuel tanks attached to flammable liquid fuel powered equipment under the following conditions:

(i) Each piece of equipment is secured in an upright position;

(ii) Each fuel tank is filled in a manner that will preclude spillage of fuel during loading, unloading, and transportation; and

(d) In the case of a helicopter, the fuel is carried on external cargo racks;

(e) Each area or compartment in which the fuel is loaded is suitably ventilated to prevent the accumulation of fuel vapors;

(f) Before each flight, the pilot-in-command:

(1) Informs each passenger of the location of the fuel and the hazards involved; and

(2) Prohibits smoking, lighting matches, the carrying of any lighted cigar, pipe, cigarette or flame, and the use of anything that might cause an open flame or spark, while loading or unloading or in flight; and

(g) Fuel is transferred to the fuel tanks only while the aircraft is on the surface.

[Amdt. 175–1, 41 FR 16106, Apr. 15, 1976, as amended by Amdt. 175–1A, 41 FR 40686, Sept. 20, 1976; Amdt. 175–12, 45 FR 13091, Feb. 28, 1980; Amdt. 175–21, 46 FR 58696, Dec. 3, 1981; Amdt. 175–47, 55 FR 52686, Dec. 21, 1990; 66 FR 45383, 45384, Aug. 28, 2001]

**§ 175.320 Cargo aircraft only; only means of transportation.**

(a) Notwithstanding § 172.101 of this subchapter, when means of transportation other than air are impracticable or not available, hazardous materials listed in the following table may be carried on a cargo aircraft only, subject to the conditions stated in the table and in paragraph (b) of this section and, when appropriate, paragraph (c) of this section:

Material	Class	Conditions
Detonators, detonator assemblies and boosters with detonators.	Division 1.1 or 1.2 explosives	Permitted only when no other hazardous material is aboard the aircraft.
Detonators, detonator assemblies and boosters with detonators.	Division 1.4 explosives .....	With the exception of Division 1.1 or 1.2 Detonators, detonator assemblies and boosters with detonators, permitted only when there are no Division 1.1 or 1.2 (Class A) explosives aboard aircraft.
Fuel, aviation, turbine engine; methyl alcohol; or toluene.	Class 3 (flammable liquid) ....	Permitted in metal drums authorized for Packing Group I or II liquid hazardous materials having rated capacities of 220 L (58.1 gallons) or less. May not be transported in the same aircraft with Class 1 (explosives), Class 5 (oxidizer), or Class 8 (corrosive) materials. Permitted in installed tanks each having a capacity of more than 450 L (118.9 gallons) subject to the conditions specified in paragraph (c) of this section.
Gasoline .....	Class 3 (flammable liquid) ....	Permitted in metal drum having rated capacities of 220 L (58.1 gallons) or less. May not be transported in the same aircraft with materials classed as Class 1 (explosive), Class 5 (oxidizer), or Class 8 (corrosive) materials. Permitted in installed tanks each having a capacity of 450 L (118.9 gallons). Subject to the conditions specified in paragraph (c) of this section.
High explosives .....	Class 1 (explosive) materials	Limited to Class 1 (explosive) materials to be used for blasting. Permitted only when no other cargo is aboard the aircraft or when being transported in the same aircraft with an authorized shipment of any one or more of any of the following materials to be used for blasting:

Material	Class	Conditions
Oil n.o.s.; petroleum oil or petroleum oil, n.o.s.	Class 3 (flammable liquid) ....	Ammonium nitrate-fuel oil mixtures. Explosive, blasting, TYPE A,B,C,D, and E (Div. 1.1D or 1.5D), or Agent, blasting, TYPE B (Div. 1.5D); Substances, explosive, very insensitive, n.o.s., or Substances, EVI, n.o.s. (Div. 1.5D); Articles, explosive, extremely insensitive or Articles, EEI (Div. 1.6N). Detonating cord. Propellant explosive (solid) (Division 1.3) (water gels only) Propellant explosive (liquid) (Division 1.3) (water gels only) Permitted in metal drums having rated capacities of 220 L (58.1 gallons) or less. May not be transported in the same aircraft with materials classed as Class 1 (explosive), Class 5 (oxidizer), or Class 8 (corrosive) materials. Permitted in installed tanks each having a capacity of 450 L (118.9 gallons). Subject to the conditions specified in paragraph (c) of this section.
Combustible liquid n.o.s. ....	Class 3 (combustible liquid) ..	Permitted in installed tanks each having a capacity of more than 450 L (118.9 gallons) subject to the conditions specified in paragraph (c) of this section.

(b) The following conditions apply to the carriage of hazardous materials performed under the authority of this section:

(1) No person other than a required flight crewmember, an FAA inspector, the shipper or consignee of the material or a representative of the shipper or consignee so designated in writing, or a person necessary for handling the material may be carried on the aircraft.

(2) The operator of the aircraft must have advance permission from the owner or operator of each manned airport where the material is to be loaded or unloaded or where the aircraft is to land while the material is on board. When the destination is changed after departure because of weather or other unforeseen circumstances, permission from the owner or operator of the alternate airport should be obtained as soon as practicable before landing.

(3) At any airport where the airport owner or operator or authorized representative thereof has designated a location for loading or unloading the material concerned, the material may not be loaded or unloaded at any other location.

(4) If the material concerned can create destructive forces or have lethal or injurious effects over an appreciable area as a result of an accident involving the aircraft or the material, the loading and unloading of the aircraft and its operation in takeoff, en route, and in landing must be conducted at a safe distance from heavily populated

areas and from any place of human abode or assembly.

(5) If the aircraft is being operated by a holder of a certificate issued under 14 CFR part 121, part 127 or part 135, operations must be conducted in accordance with conditions and limitations specified in the certificate holder's operations specifications or operations manual accepted by the FAA. If the aircraft is being operated under 14 CFR part 91, operations must be conducted in accordance with an operations plan accepted and acknowledged in writing by the Civil Aviation Security Office serving the operator's location or the place where the material is to be loaded.

(6) Each pilot of the aircraft must be provided written instructions stating the conditions and limitations of the operation being conducted and the name of the airport official[s] granting the advance permission required by the first sentence of paragraph (b)(2) of this section.

(7) The aircraft and the loading arrangement to be used must be approved for safe carriage of the particular materials concerned by the FAA Civil Aviation Security Office responsible for the operator's overall aviation security program or the appropriate FAA Civil Aviation Security Office serving the place where the material is to be loaded.

(8) When Division 1.1 or 1.2 (explosive) materials are carried aboard cargo aircraft only under the provisions of this section, the aircraft operator shall take all possible action to

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insure that routes over heavily populated areas are avoided commensurate with considerations of flight safety. During the approach and landing phase, the aircraft operator shall request appropriate vectors when under radar control to avoid heavily populated areas.

(9) During loading and unloading, no person may smoke, carry a lighted cigarette, cigar, or pipe, or operate any device capable of causing an open flame or spark within 15 m (50 feet) of the aircraft.

(10) If the movement involves international transportation, permission for the shipment may also be required from the appropriate authorities of the countries of origin, destination, transit and overflight prior to departure.

(c) The following additional conditions apply to the carriage of Class 3 (flammable) and combustible liquid materials in tanks each having a capacity of more than 420 liters (111 gallons) under the authority of this section:

(1) The tanks and their associated piping and equipment and the installation thereof must have been approved for the material to be transported by the appropriate FAA Regional Office.

(2) In the case of an aircraft being operated by a certificate holder, the operator shall list the aircraft and the approval information in its operating specifications. If the aircraft is being operated by other than a certificate holder, a copy of the FAA Regional Office approval required by this section must be carried on the aircraft.

(3) The crew of the aircraft must be thoroughly briefed on the operation of the particular bulk tank system being used.

(4) During loading and unloading and thereafter until any remaining fumes within the aircraft are dissipated:

(i) Only those electrically operated bulk tank shutoff valves that have been approved under a supplemental type certificate may be electrically operated.

(ii) No engine or electrical equipment, avionic equipment, or auxiliary power units may be operated, except position lights in the steady position and equipment required by approved loading or unloading procedures, as set

forth in the operator's operations manual, or for operators that are not certificate holders, as set forth in a written statement.

(iii) No person may fill a container, other than an approved bulk tank, with a Class 3 (flammable and combustible liquid) materials or discharge a Class 3 (flammable and combustible liquid) materials from a container, other than an approved bulk tank, while that container is inside or within 15 m (50 feet) of the aircraft.

(iv) When filling an approved bulk tank by hose from inside the aircraft, the doors and hatches must be fully open to insure proper ventilation.

(v) Static ground wires must be connected between the storage tank or fueler and the aircraft, and between the aircraft and a positive ground device.

[Amdt. 175–1, 41 FR 16106, Apr. 15, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 175.320, see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and on GPO Access.

### **§ 175.630 Special requirements for Division 6.1 (poisonous) material and Division 6.2 (infectious substance) material.**

(a) A hazardous material bearing a POISON, POISON INHALATION HAZARD, or INFECTIOUS SUBSTANCE label may not be carried in the same compartment of an aircraft with material which is marked as or known to be a foodstuff, feed, or any other edible material intended for consumption by humans or animals unless either the Division 6.1 (poisonous) material or material in Division 6.2 (infectious substance) and the foodstuff, feed, or other edible material are loaded in separate unit load devices which, when stowed on the aircraft, are not adjacent to each other, or the Division 6.1 (poisonous) material or material in Division 6.2 (infectious substance) are loaded in one closed unit load device and the foodstuff, feed or other material is loaded in another closed unit load device.

(b) No person may operate an aircraft that has been used to transport any package bearing a POISON or POISON INHALATION HAZARD label unless, upon removal of such package, the area